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REMARKS

Claims 17-19, 21-24, 28-33, and 36 remain rejected, under 35 U.S.C. § 103, as being unpatentable over DE '362 in view of Pusch'882. Claims 20 and 34 remain rejected, under 35 U.S.C. § 103, as being unpatentable over DE '362 in view of Pusch'882 and further in view of Fels '457. Claims 25-27 remain rejected, under 35 U.S.C. § 103, as being unpatentable over DE '362 in view of Pusch'882 and further in view of McKinney '465. The Applicant has rewritten claims 17-36 corresponding essentially to new claims 37-56 and acknowledges and again respectfully traverses the raised obviousness rejections in view of the rewritten claims and following remarks.

As the Examiner is aware, in order to properly support a rejection under 35 U.S.C. § 103(a), the references must provide some express or inherent disclosure, or motivation which would lead a person of skill in the art to combine the references as suggested by the Examiner. The Examiner has refuted the Applicant's arguments relating to the inappropriateness of combining the cited DE '362 and Pusch'882 references by stating that one would have been motivated to combine the references because the references are analogous. However, whether the references are analogous or not, is not sufficient to support a prima facie case of obviousness.

The Examiner is first reminded that when rejecting claims under 35 USC § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed.Cir. 1992). Only if that burden is met, does the burden of coming forward with evidence or argument shift to the Applicant. *Id.* Further, "[a] prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." In re Bell, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed.Cir. 1993) (quoting In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA) 1976)). If the Examiner fails to establish a prima facie case, the rejection is improper and will be overturned. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed.Cir. 1988).

The mere fact, even if it is true, that references are analogous, is not in and of itself a sufficient legal support for obviousness. It is well settled, as noted by the following case law

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citations, that references, whether analogous or not, must present some disclosure, teaching or suggestion which would lead one of skill in the art to combine the references.

Undoubtedly, these patents disclose, individually, the separate elements or components of the invention. However, none of them teaches or even suggests combining these various elements or components in the manner taught by Silman, and it is well settled that references may not be combined where there is no suggestion in any of the references that they can be combined to meet the recitations of the claims. United Merchants and Manufacturers, Inc. v. Commissioner of Patents, 139 USPQ 199, 200 (DC, District of Columbia 1963).

This legal concept has also been long sustained by the Federal Circuit, "The lesson of this case appears to be that prior art references in combination do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from combining their teachings." In re Sernaker, 702 F.2d 989, 995-6, 217 USPQ 1, 6 (CAFC 1983).

In this regard, the Applicant has made a thorough review of both references and nowhere in Pusch et al. '882, which relates to a seven (7) layer tenting material and a specific tent structure, is there any disclosure or teaching relating to a structure or similar function of reducing thermal imaging of noted hotspots as accomplished by the 3-layer structure in DE '362. Other than some similarity in known materials for plastic coating of a base fabric is there even an overlap of subject matter sufficient to sustain the Examiner's claim of analogous references.

In any event, the Applicant notes that where the combined references do not teach either expressly or impliedly the combination, the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. The Examiner indicates on page 3 of the official action that "[i]t would have been obvious to one having ordinary skill in the art to have used Pusch's polyurethane in place of the silicone elastomer of DE '362, motivated by the desire to create a material that has *high strength*." It is the Applicant's position that the such coatings are immaterial to the "strength" of the overall fabric. In fact, the Examiner has not presented

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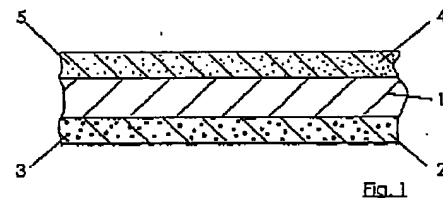
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any evidence, nor is it true, that a polyurethane coated base fabric would have any material increase in strength over a silicone elastomer coating.

The reason the Applicant uses polyurethane on the outer facing outside surface of the fabric is to among other things reduce the "glistening" presented by silicone elastomers as discussed at paragraph [010] of the Applicant's specification. The rational for using polyurethane has nothing to do with strength of the material. Therefore because the Examiner has not presented any evidence, factual basis or relevant rational reason to support the combination of references, the Applicant believes that the combination of DE '362 in view of Pusch '882 is not adequately supported either by the disclosures themselves, or the Examiner's reasoning for combination, and thus respectfully requests withdrawal of the combination and the respective obviousness rejection.

Even if the two references could be combined, and the Applicant adamantly asserts that such a combination is unsupportable, while arguably each of these references discloses a glass fiber material to be used as the base fabric, e.g., the light woven fabric 11 in the Pusch et al. '882, and the glass filament textile 1 as disclosed in DE '632, these references each disclose an entirely different layered fabric structure.

Observing the arrangement of the layered cloth material disclosed in Fig. 1 of the DE '362 and understanding DE '362 specifically discloses only three (3) layers as shown below, (1) a silica elastomer 2 and (2) a silica elastomer 4 as the respective outer surface coatings directly applied on both sides of (3) the underlying base layer 1.



Completely different from this known structure of DE '362, Pusch et al. '882 specifically discloses three (3) layers on each side of the light woven fabric 11, thereby obtaining a total of a seven (7) layer fabric structure. On each side of the base fabric is layered a plastic coating 12, a metal film 13 thereon and finally a color coat 14, including primers

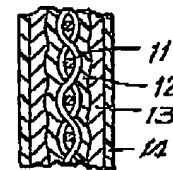


FIG. 3

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between each layer 11-14 for improving the adhesive strength of the layers to one another.

This explicit seven (7) layered cloth structure is the only description provided for such a tent fabric. While arguably the plastic coating 12 may be PVC, polyurethane or silicone rubber as described at column 2, lines 5-8, the further layering of the metal film 13 and color coat 14 is an entirely different cloth structure from either DE '362 or the presently claimed invention. The disclosures of the combined references are particularly specific with respect to the materials layering, and thus any application of the teachings of Pusch et al. '882 would necessarily include the further layers of metal film and color coat on top of the plastic layer.

In order to further clarify the presently claimed invention from such a combination, the Applicant has rewritten each of the independent claims to specify the single directly deposited layers on each side of the base fabric. Claim 37 now recites "...an inner side consisting of a surface coating containing aluminum powder, and an outer side consisting of a surface coating containing color pigments . . . wherein the surface coating containing color pigments (5) on the outer side is one of a polyurethane coating (4) and a polyvinylidene fluoride coating (PVDF)". As an initial matter the plastic layer coating 12 in Pusch does not "contain" either color pigments nor aluminum powder, these are layered on top of the plastic layer 12. Secondly, the metallized film 13 is applied on both sides of Pusch et al. '882 as is the color coat 14 as noted by the above FIG. 3. This is entirely contrary to the present invention, as well as DE '362, where the presently claimed invention has the color pigments and aluminum powder contained in the plastic layer on opposite sides of the base fabric of the present invention. Independent claims 55 and 56 also include limitations similar to that of claim 37 and therefore for the same reasons as set forth above, are also believed to be allowable.

Turning to Applicant's claim 55 it is important to note that contrary to the two cited references which maintain the same plastic material on both sides of the base fabric, claim 55 specifically recites that in the Applicant's invention the opposing plastic layers are different, "wherein the surface coating containing color pigments (5) on the outer side is one of a polyurethane coating (4) and a polyvinylidene fluoride coating (PVDF) containing about 10% to 50% color pigments, and the surface coating containing aluminum powder on the inner side is a silicone elastomer coating (6) containing a proportion of aluminum powder (7) of about 20% to 40% by weight". Importantly, the present invention teaches that the silicone elastomer is not

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to be applied to the outer surface of the fabric, it can be applied only to the inner side as clearly set forth in claim 35.

Claims 20 and 34, now claims 40 and 54, are rejected, under 35 U.S.C. § 103(a), as being unpatentable over DE '362 in view of Pusch et al. '882 as applied to claim 17 and further in view of Fels et al. '457. The Applicant notes that the remaining claims are dependent on claim 37 which is now believed allowable in view of the above remarks and amendments, however, for purposes of responding fully to the official action, the Applicant reiterates and respectfully traverses the raised obviousness rejection in view of the following remarks.

Fels et al. '457 is entirely different from the essentially passive electromagnetic, IR and thermal camouflage as described in both DE '362 and Pusch et al. '882 as well as from the presently claimed invention. Fels et al. '457 relates specifically to the field of physical, protective armor, in particular to penetration resistant fibers, particularly, protective vests for protection against knives, bullets and explosive fragmentation. While it may be that such protective armor can be provided with visual camouflage as suggested at column 7, lines 5 and 6 of Fels et al. '457, this reference relates to the make-up of the yarn which is an entirely different structural and functional device specifically designed to resist piercing and cutting, which is an entirely unrelated field and fundamentally different from the passive thermal camouflage provided by the camouflage fabric as disclosed and claimed in DE '362, Pusch et al. '882 or the present invention.

Initially, Fels et al. '457 has nothing to do with covering heat sources against identification in a thermal image as specifically recited in claim 17, and contrary to Fels et al. '457 the other references as well as the present invention are not intended to provide physical protection from anything except passive thermal detection. Thus, it is the Applicant's position that while both references could have different military purposes, there is nothing which would cause one of ordinary skill in the art to use the physical protective strength of the multi-layered yarn as shown in FIG. 2 of the Fels et al. '487 as disclosed in Fels et al. '457, with DE '362, Pusch et al. '882 in order to achieve the presently claimed invention.

Again, even if these references could be combined in a manner as suggested by the Examiner, Fels et al. '457 specifically discloses yarn structure for a fabric intended to be the

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outermost surface or covering of a piece or protective armor. As recited at column 9, lines, 50-53 "The fabrics thus produced are further processed to produce a vest to protect against fragments, this fabric being used for the *outer layers* and lining of the vest. . .". Contrary to this disclosure, the present invention specifically claims that the inner most base layer made of glass filament fabric is fashioned either as a twill or cross twill, as recited in claim 20, "wherein the glass filament fabric (1) is a twill binding, preferably a cross-twill". The Applicant's invention is not merely the use of a twill or cross-twill fabric but inclusively the use of such a preferred material for the base layer in a multi-layer fabric as recited in the claims.

Furthermore, the Applicant points out that the outer coating 15, or outer sheath 15, of the Fels et al. '457 example teaches a sheath made of cotton. While it may be that several of the examples in Fels et al. '457 disclose the use of twill and/or cross twill weave, there is nothing which would lead one of ordinary skill in the art to discern that this type of weave would be beneficial in any respect to a passive thermal camouflage as in the remaining combined references as well as the presently claimed invention. Thus, the Applicant reiterates that the use of such a cross twill weave could only be ascertained from Fels et al. '457 as useful in matters of physical penetration of armor which is an entirely different field than that of the passive thermal camouflage and, therefore, there would be no reason for one of skill in the art to look to the other and combine these references.

The Applicant acknowledges that the additional references of McKinney '465 and may arguably relate to the features indicated by the Examiner in the official action. Nevertheless, the Applicant respectfully submits that the combination of the base reference with this additional art still fails to in any way teach, suggest or disclose the above distinguishing features of the presently claimed invention. As claims 25-27, now claims 45-47 are dependent either directly or indirectly on claim 37, these claims are believed allowable as well. With regards to the combination of Bussiere '371, there is nothing in this further reference which teaches towards a combination with DE '362 and Pusch. The "motivation" to combine Bussiere '371 is found only in the Applicant's present disclosure, and therefore it is the Applicant's position that such motivation comes only from an improper use of hindsight. As courts have long espoused, ". . . it is not enough for a valid rejection to view the prior art in retrospect once an applicant's disclosure is known. The art applied should be viewed by itself to see if it fairly disclosed doing

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what an applicant has done. If the art did not do so, the references may have been improperly combined." In re Shaffer, 108 USPQ 326, 328, 329 (CCPA 1956).

The Patent Office Board of Patent Appeals has similarly upheld this requirement, "We have studied the references and the manner in which the examiner proposes to combine their teachings but we are unable to find in these references any suggestion that they should or could be combined, absent appellant's disclosure in the present application." Ex Parte Lennox, 144 USPQ 224, 225 (Patent Office Board of Appeals 1964). 1967).

As such, all of the raised obviousness rejections should be withdrawn at this time in view of the above amendments and remarks. If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised obviousness rejections should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding obviousness rejections or applicability of the DE '362, Pusch '882, Fels ' 457, McKinney '465 and Bussiere '371 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

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Respectfully submitted,



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